



Attorney's Docket No. OHS-320
MAIL STOP AMENDMENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:) Group Art Unit: 1714
OKADA; SHIMIZU)
Serial No.: 10/088,658)
Filed: March 20, 2002)
Examiner: Patrick D. Niland

For: LIQUID RAW MATERIAL FOR PRODUCING FORMED POLYURETHANE
OR AROMATIC POLYAMIDE, AND USE OF HYDROTALCITE
COMPOUND PARTICLES THEREFOR

APPENDIX A

Please amend the claims as indicated according to the revision to 37 C.F.R. § 1.121 concerning a manner for making claim amendments.

1. (Currently amended) A dispersion comprising
 - (A) hydrotalcite compound particles having
 - (1) an average secondary particle diameter of 0.60 to 3 μm as measured by a laser beam diffraction scattering method,
 - (2) a specific surface area of 0.5 to 10 m^2/g as measured by a BET method, and
 - (3) a platy crystal particle shape having an average aspect ratio (major axis diameter/thickness) of 1.7 to 8, and
 - (B) an organic polar solvent which is at least one selected from the group consisting of dimethylformamide (DMF), dimethylacetamide (DMAC), dimethyl sulfoxide (DMSO) and N-

methypyrrolidone (NMP).

2. (Original) A dispersion according to Claim 1, wherein the content of the hydrotalcite compound particles is 10 to 30% by weight.

3. (Canceled)

4. (Original) A dispersion according to Claim 1, wherein the hydrotalcite compound particles have been surface-treated with a surface-treating agent.

5. (Original) A dispersion according to Claim 1, wherein the hydrotalcite compound particles have been produced without conducting any wet grinding treatment in an organic polar solvent.

6. (Currently amended) A dope for dry or wet production of polyurethane article, comprising

(A) hydrotalcite compound particles having

(1) an average secondary particle diameter of 0.60 to 3 μm as measured by a laser beam diffraction scattering method,

(2) a specific surface area of 0.5 to 10 m^2/g as measured by a BET method, and

(3) a platy crystal particle shape having an average aspect ratio (major axis diameter/thickness) of 1.7 to 8,

(B) an organic polar solvent which is at least one selected from the group consisting of dimethylformamide (DMF), dimethylacetamide (DMAC), dimethyl sulfoxide (DMSO) and N-methylpyrrolidone (NMP), and

(C) a polyurethane.

7. (Original) A dope according to Claim 6, wherein the content of the hydrotalcite compound particles is 0.05 to 5% by weight and the content of the polyurethane is 10 to 45% by weight.

8. (Canceled)

9. (Original) A dope according to Claim 6, wherein the hydrotalcite compound particles have been surface-treated with a surface-treating agent.

10. (Original) A dope according to Claim 6, wherein the hydrotalcite compound particles have been produced without conducting any wet grinding treatment in an organic polar solvent.

11. (Currently amended) A polyurethane fiber containing (A)

hydrotalcite compound particles having

(1) an average secondary particle diameter of 0.60 to 3 μm as measured by a laser beam diffraction scattering method,

(2) a specific surface area of 0.5 to 10 m^2/g as measured by a BET method, and

(3) a platy crystal particle shape having an average aspect ratio (major axis diameter/thickness) of 1.7 to 8.

12. (Original) A polyurethane fiber according to Claim 11, wherein the content of the hydrotalcite compound particles is 0.1 to 10% by weight.

13. (Canceled)

14. (Original) A polyurethane fiber according to Claim 11, wherein the hydrotalcite compound particles have been surface-treated with a surface-treating agent.

15. (Canceled)

16. (Currently amended) A dope for dry or wet production of aromatic polyamide article, comprising

(A) hydrotalcite compound particles having

(1) an average secondary particle diameter of 0.60 to 3 μm as measured by a laser beam diffraction scattering method,

(2) a specific surface area of 0.5 to 10 m^2/g as measured by a BET method, and

(3) a platy crystal particle shape having an average aspect ratio (major axis diameter/thickness) of 1.7 to 8,

(B) an organic polar solvent which is at least one selected from the group consisting of dimethylformamide (DMF), dimethylacetamide (DMAC), dimethyl sulfoxide (DMSO) and N-methylpyrrolidone (NMP), and

(C) an aromatic polyamide.

17. (Original) A dope according to Claim 16, wherein the content of the hydrotalcite compound particles is 0.05 to 5% by weight and the content of the aromatic polyamide is 5 to 40% by weight.

18. (Canceled)

19. (Original) A dope according to Claim 16, wherein the hydrotalcite compound particles have been surface-treated with a surface-treating agent.

20. (Currently amended) An aromatic polyamide film or fiber containing (A) hydrotalcite compound particles having

(1) an average secondary particle diameter of 0.60 to 3 μm as measured by a laser beam diffraction scattering method,

(2) a specific surface area of 0.5 to 10 m^2/g as measured by a BET method, and

(3) a platy crystal particle shape having an average aspect ratio (major axis diameter/thickness) of 1.7 to 8.

21. (Original) An aromatic polyamide film or fiber according to Claim 20, wherein the content of the hydrotalcite compound particles is 0.1 to 10% by weight.

22. (Canceled)

23. (Original) An aromatic polyamide film or fiber according to Claim 20, wherein the hydrotalcite compound particles have been surface-treated with a surface-treating agent.

24. (Canceled)

25. (Currently amended) Hydrotalcite compound particles for dispersion in organic polar solvent which is at least one selected

from the group consisting of dimethylformamide (DMF), dimethylacetamide (DMAC), dimethyl sulfoxide (DMSO) and N-methylpyrrolidone (NMP), having

(1) an average secondary particle diameter of 0.60 to 3 μm as measured by a laser beam diffraction scattering method,

(2) a specific surface area of 0.5 to 10 m^2/g as measured by a BET method, and

(3) a platy crystal particle shape having an average aspect ratio (major axis diameter/thickness) of 1.7 to 8.

26. (Canceled)

27. (Original) Hydrotalcite compound particles according to Claim 25, which have been surface-treated with a surface-treating agent.

28. (Original) Hydrotalcite compound particles according to Claim 25, which have been surface-modified with at least one kind selected from the group consisting of silicon compounds, boron compounds and aluminum compounds.

29. (Canceled)

30. (Original) Hydrotalcite compound particles according to Claim 25, having an average secondary particle diameter of 0.8 to 2 μm as measured by a laser beam diffraction scattering method.

31. (Original) Hydrotalcite compound particles according to Claim 25, wherein the proportion of the particles having secondary particle diameters of 5 μm or more as measured by a laser beam diffraction scattering method is 1% or less.

32. (Original) Hydrotalcite compound particles according to Claim 25, having a platy crystal particle shape having an average aspect ratio (major axis diameter/thickness) of 2 to 6.

33. (Currently amended) A polyurethane fiber according to Claim 11 produced from a dope comprising

(A) hydrotalcite compound particles having

(1) an average secondary particle diameter of 0.60 to 3 μm as measured by a laser beam diffraction scattering method,

(2) a specific surface area of 0.5 to 10 m^2/g as measured by a BET method, and

(3) a platy crystal particle shape having an average aspect ratio (major axis diameter/thickness) of 1.7 to 8,

(B) an organic polar solvent which is at least one selected

from the group consisting of dimethylformamide (DMF), dimethylacetamide (DMAC), dimethyl sulfoxide (DMSO) and N-methylpyrrolidone (NMP), and

(C) a polyurethane,
by a wet or dry method.

34. (Currently amended) An aromatic polyamide film or fiber according to Claim 20, produced from a dope comprising,

(A) hydrotalcite compound particles having

(1) an average secondary particle diameter of 0.60 to 3 μm as measured by a laser beam diffraction scattering method,

(2) a specific surface area of 0.5 to 10 m^2/g as measured by a BET method, and

(3) a platy crystal particle shape having an average aspect ratio (major axis diameter/thickness) of 1.7 to 8,

(B) an organic polar solvent which is at least one selected from the group consisting of dimethylformamide (DMF), dimethylacetamide (DMAC), dimethyl sulfoxide (DMSO) and N-methylpyrrolidone (NMP), and

(C) an aromatic polyamide,
by a wet or dry method.

35. (Currently amended) ~~Hydrotalcite compound particles~~ A

dispersion according to claim 3 4, wherein the surface-treating agent is at least one kind selected from the group consisting of higher fatty acids, anionic surfactants, phosphoric acid esters and coupling agents.

36. (Currently amended) Hydrotalcite compound particles according to claim 25 27, wherein the surface-treating agent is at least one kind selected from the group consisting of higher fatty acids, anionic surfactants, phosphoric acid esters and coupling agents.